

Comments for Draft Revisions *(Not Applicable to Directives; Refer to Directive Management Officer for Directive Comment Format)*

Organization:		Thales Avionics						
#	Document Name	Page Number	Paragraph Number	Referenced Text	Comment/Rationale or Question	Proposed Resolution	Comment Type (Conceptual, Editorial, or Format)	Disposition/Response to Comment
1	AC 20-185	4	3.1.6	SVGS operations will require a means in the SVGS design to meet the required time to alert for error detection.	Are we talking about SVGS 3D scene position monitoring, ILS guidance monitoring or both? THALES understanding is that requirement is dealing with SVGS 3D scene position monitoring.	Complete with "SVGS operations will require a means in the SVGS design to meet the required time to alert for SVGS 3D scene positioning error detection."	Conceptual	Comment Noted. Impacted paragraph was deleted from the AC. Original 3.1.6 was from introductory material in DO-359 and not the system performance criteria sections.
2	AC 20-185	4	3.1.5	The additional airborne monitoring systems ensure the same level of accuracy, integrity and time to alert as the equivalent ground based systems normally used for these operations.	Please clarify if CAT II approach operations are concerned. In this case is accuracy relevant?	Replace with "The additional airborne monitoring systems ensure the same level of accuracy , integrity and time to alert as the equivalent ground based systems normally used for CATII approach operations these operations "	Conceptual	Comment Noted. Impacted paragraph was deleted from the AC. Original 3.1.5 was from introductory material in DO-359 and not the system performance criteria sections. SVGS could provide the accuracy mentioned in DO-359 section 2.1, which refers to more detailed performance requirements throughout DO-359 section 3.
3	AC 20-185	5	4.1.2	All requirements listed in RTCA/DO-359 apply with the exception of requirements specific to HUD installation, or GPS based approach navigation guidance	There is no reference in AC to requirements of selection/deselection of SVGS image and brightness control by pilots when displayed on HDD. Those requirements are specific to SVS (required in RTCA DO-315B) but not recalled in AC-SVGS by DO-315B reference, nor DO-359. Generally, AC 20-SVGS should reference also RTCA DO-315B regarding all requirements still applicable for SVGS and not superseded by DO-359 (refer to §1.5 from DO-359) if any.	Please clarify by addition of appropriate requirement in §4.1 if any.	Conceptual	Comment Accepted. Para 4.2.1 added.

Organization:			Thales Avionics					
4	AC 20-185	4	3.1.5	A radio altimeter system or equivalent is required to provide height above terrain.	Monitorings required by DO-359 are suggested to be implemented based on height above terrain values (consistent with the AC requirement to embed a radio altimeter). How can be managed the consistency with ILS SA-CAT I approach operations using a DA and not a DH ? Is the use of Radio altimeter still relevant in those cases?	Please clarify by addition of appropriate precision or comment in the sentence.	Conceptual	Comment Accepted. Para 4.2.4 added.
Organization:			Bombardier					
5	AC 20-185	3	2.1.2	RTCA DO-359 Section 2.2.1.17 : "A quick-glance interpretation of attitude shall be possible for all unusual attitude situations and other "non-normal" maneuvers sufficient to permit the pilot to recognize the unusual attitude and initiate an appropriate recovery within one second."	The proposal of recognition of the unusual attitude, in addition to the initiating of an appropriate recovery by the pilot within the timeframe of "one second" is considered as not realistic.	A timeframe of two seconds is considered as more appropriate for both tasks (one second for each of the tasks, as a minimum). The AC 20-SVGS should specify this timeframe and the deviation compared to the DO-359.	C	Comment rejected. DO-359 language is consistent with AC 25-11B and AC 20-167 language.
6	AC 20-185	5	3.2	AC 20-SVGS : "While the block diagram in DO-359 describes how the system can be used in conjunction with the satellite based instrument approaches, this AC does not address SVGS when used with satellite based approach guidance."	Why SVGS operations based on SBAS and/or GBAS seem excluded from AC20-SVGS?	Clarification is needed from FAA about the exclusion of satellite based approach guidance.	C	Comment Noted. AC adjusted to make it clear that initial implementation of SVGS systems will only be in support of SA CAT I ILS approaches. Expansion to GPS based approaches may happen at a future date but will not be part of the initial implementation.
Organization:			Bombardier					
7	AC 20-185	Numerous	Numerous	Exclusion of HUD	Application of this AC to a HUD should not be excluded. The AC should include a HUD as a viable and acceptable SVGS platform because; (i) Operational and service experience needs to be accumulated to validate the operation and to build up regulator confidence, and (ii) the airframe and equipment OEMs all believe that a HUD/SVGS combination will safely allow SVGS/Cat.1 LVO trained crews to perform SA CAT I approaches. SVGS on a HUD is required to pursue this.	Make the MASPS applicable to HUDs as well as Head Down PFDs.	Conceptual	Accepted. Document altered to meet the intent of the comment.

Organization:			Thales Avionics					
8	AC 20-185	Page 5	4.1.3		The para discusses the "navigation" database whereas the referenced section 2.5 in MASPS DO-359 discusses a "runway" database.	Refer to "runway" database rather than "navigation" to avoid confusion.	Editorial.	Comment Accepted. Text Modified.
9	AC 20-185	Page 11	B.1		A single definition with no title sneaked in.	Delete the sentence.	Editorial.	Comment Accepted. Text Modified.
Organization:			Boeing					
10	AC 20-185	1	1.1.2 & 1.3.1	As a general comment, this proposed AC extensively references RTCA DO-359 and identifies that the AC only provides guidance relative to certain areas of RTCA DO-359 (i.e. only SA CAT I ILS presented on HDD).	The proposed Advisory Circular should be expanded to include all needed guidance material and not depend on the applicant referring to a third party proprietary document (that must be purchased separately) for key airworthiness requirements.	The proposed AC is not a stand-alone document as currently written. It is essentially a cover letter deferring to guidance contained in RTCA DO-359. This makes interpretation (and public comment) difficult, particularly since the AC only authorizes a limited aspect of the operation proposed in RTCA DO-359 (SA CAT I on a HDD)	Conceptual	Comment Noted. The FAA did not have clearance from RTCA to publish large excerpts of DO-359.
11	AC 20-185	3	3.1.1	"3.1.1 RTCA DO-359 describes SVGS as a combination of SVS and flight guidance displayed on the primary flight display, and high precision position assurance monitors. The SVGS flight instrument display provides a continuous, geo-spatially correct depiction of the external scene topography, including obstacles, augmented by the display of the runway of intended landing. The SVGS display is implemented on a head-down Primary Flight Display (PFD), designed to the guidance provided by AC 25-11B. SVGS includes additional symbology elements, integrity and performance monitors and annunciations.	We recommend to specify that the SVGS must be displayed on the PFDs of both the pilot flying and the pilot monitoring.	The referenced RTCA DO-359 is ambiguous in this regard. For HUD implementations, RTCA DO-359 states that the SVGS must also be displayed on the PFDs of both the pilot flying and the pilot monitoring, but no similar statement is made for an HDD implementation.	Conceptual	Comment Accepted. Language added to para 4.2.3..

Organization:			Thales Avionics					
12		5	4.1.1	The proposed text in this AC references Section 2 and Section 3 of RTCA DO-359, for general performance and specific performance requirements, respectively. Looking at those sections you find that when barometric altimetry is used to determine the missed approach point it shall be temperature compensated.	We recommend to delete proposed text completely.	In general, compensation for non-standard temperatures is being worked at a higher level within the industry and should not be mandated for a particular feature of an SVGS within this proposed AC. Although many TAWS systems provide for it, temperature compensation is not a requirement per AC 25-23.	Conceptual	Comment Noted. AC para 4.2.4 added. Barometric altimeter is not the primary means to determine DH on a SA CAT I ILS instrument approach,
13		11	Appendix B	The proposed text states: "B.1 Definitions. See DO-359 The angular extent of the display that can be seen by either pilot with the pilot seated at the pilot's station."	We recommend to delete proposed text completely.	This text is out of context, and looks like a cut and paste error.	Editorial	Comment Accepted. Text Modified.
Organization:			Garmin					
14	AC-20 SVGS	ALL	Throughout	There are several instances of the verb "must" used throughout this AC.	FAA Order 1320.46D, FAA Advisory Circular System, Chapter 3 paragraph 7.f states: "f. Use "must" to convey regulatory requirements. ... "Must" clearly conveys a requirement." Every instance of the verb "must" within the entire draft AC should be examined to determine whether there is a clear regulatory requirement for the use of "must".	If a clear regulatory requirement cannot be found when the verb "must" is used, the text should be revised to remove the implication that the guidance is based on a regulatory requirement. If a clear regulatory requirement can be found, it should be referenced to enable the reader to make the connection to the regulation that is the basis for the AC using the verb "must".	Conceptual	Comment Accepted. AC edited to address comment.
15	AC-20 SVGS	1	1.1.3	"Installation guidance for systems than can be used to fly LPV or GLS based approaches can be found in current version of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems."	In the last sentence, the word "than" should be "that".	See comment	Editorial	Comment Accepted. Text Modified.
16	AC 20-185	2	1.1.6	"This AC describes an acceptable means, but not the only means, to install and obtain airworthiness approval equipment installation of SVGS."	"...approval equipment..." should be "approval of equipment..."	See comment	Editorial	Comment Accepted. Text modified.

Organization:		Thales Avionics						
17	AC 20-185	2	1.1.6	<p>“However, if you use the means described in this AC, you must follow it in all aspects.”</p>	<p>The statement that “if you use the means described in this AC, you must follow it in all aspects” is contradictory to both the preceding statement in 1.1.6 that:</p> <p>“This AC describes an acceptable means, but not the only means, to install and obtain airworthiness approval equipment installation of SVGS.”</p> <p>And FAA Order 1320.46D, FAA Advisory Circular System, Chapter 3 paragraph 9.c, which states:</p> <p>“c. ACs may set forth acceptable ways of complying with a particular regulation. However, do not imply that the AC represents the only acceptable way to comply. A person is free to follow the AC or to meet the regulatory requirement in a different way.”</p> <p>It also should be acceptable to use only parts of the means described within this AC provided deviations are clearly identified.</p>	Revise this statement so that the statements in 1.1.6 are internally consistent and consistent with requirements of FAA Order 1320.46D. Or, simply remove this statement.	Conceptual	Comment Accepted. AC revised to address the usage of “must” and “should”.
18	AC 20-185	1, 3	1.1.2, 3.1.1	<p>“This AC only provides airworthiness guidance to applicants for eligible SVGS for SA CAT I ILS instrument approach procedures when presented on the HDD.”</p> <p>“The SVGS display is implemented on a head-down Primary Flight Display (PFD), designed to the guidance provided by AC 25-11B.”</p>	These paragraphs limit SVGS to the head-down display. Since RTCA/DO-359 allows for use of a HUD, it seems that the AC should encompass HUD implementation of SVGS too.	See comment	Conceptual	Comment Accepted. AC adjusted to allow for HUD installation
19	AC 20-185	4-5	3.1.4-3.1.6		These paragraphs state what is required (monitors, DRIL, PFV, and FPARC) for SVGS operations. Section 1 states that SVGS is only for situational awareness. These two sections seem contradictory.	Sections 3.1.4-3.1.6 should be removed.	Conceptual	Comment Accepted. Paragraph deleted.

Organization:			Thales Avionics					
20	AC 20-185	5	3.1.6	<p>“SVGS operations will require a means in the SVGS design to meet the required time to alert for error detection. The time to alert criteria and probability of display of Hazardously Misleading Information (HMI) equivalent to ILS CAT II approach operations shall apply to SVGS operations.”</p>	<p>These “require” and “shall” statements are not consistent with the scope of the AC as stated in section 1.1.6. Furthermore, is time-to-alert criteria applicable since section 1 states that SVGS is for situational awareness only?</p> <p>Additionally, the use of the verb “shall” is inconsistent with FAA Order 1320.46D, FAA Advisory Circular System, Chapter 3 paragraph 7.f, which states (emphasis added):</p> <p>“f. Use "must" to convey regulatory requirements. Do not use "shall." Shall is an ambiguous word. It can mean must, should, ought, or will. "Must" clearly conveys a requirement.”</p>	<p>Section 3.1.6 should be removed.</p> <p>If section 3.1.6 remains, the verb “shall” should be replaced with “should” since no regulatory basis has been identified that warrants using “must” in this statement.</p>	Conceptual	Comment Accepted. AC revised to address the usage of “must” and “should”.
Organization:			Rockwell					

Organization:		Thales Avionics						
21	AC 20-185		General		<p>Rockwell Collins applauds the FAA for moving forward with the first step for implementation of the DO-359 MASPS for SVGS. However, this AC focuses only on HDD implementation of SVGS. While Rockwell Collins intends to certify such a system and recognizes the operational value this rule provides, the industry also desires to expand the capabilities of the HUD.</p> <p>We also have concerns about the HDD credit proposed (1400' RVR) as the NASA NextGen SVGS testing indicated that 1800' RVR was a more appropriate limit.</p> <p>This AC is a step in the right direction however the scope of the AC is too narrow. The industry through the SC-213 committee and independent testing have verified the use of HUD and SVGS can and should remove the CAT II flight crew training requirements required for SA CAT I operations.</p> <p>Is it the FAA's intent to require a PoC to collect data and validate SA CAT I SVGS HDD viability as previously done with HGS/HUD SA CAT I in 2009?</p>	<p>There are thousands of aircraft operating with a HUD. Our market research indicates a large percentage of operators desire lower minimums without the overhead of the CAT II qualifications and believe SVGS on HUD can provide that benefit.</p> <p>Provide rationale for 1400' RVR guidance when implemented on HDD.</p>		Comment Noted. Will continue to discuss the topic with AFS-410. For this AC, operational credit is beyond scope.
22	AC 20-185		1.1.1		<p>"The initial implementation of SVGS is for use on Special Authorization (SA) Category (CAT) I Instrument Landing System (ILS) approaches. Operational approval must still be obtained from the Flight Standards Service."</p> <p>Will there be a corresponding SVGS Operational AC similar to the Operational AC for EFVS and/or will FAA Order 8400.13 be updated to include SVGS as special equipment for SA CAT I?</p>	<p>"The initial implementation of SVGS is for use on Category (CAT) I Instrument Landing System (ILS) approaches. Operational approval must still be obtained from the Flight Standards Service."</p> <p>Previously the FAA required an Operational Safety Assessment by AFS-440 prior to issuance of any OpSpec approval.</p>		Comment Accepted. Text Modified.
23	AC 20-185		1.1.2		"This AC only provides	"This AC only provides		Comment Accepted. Text

Organization:		Thales Avionics						
					<p>airworthiness guidance to applicants for eligible SVGS for SA CAT I ILS instrument approach procedures when presented on the HDD.”</p> <p>Currently, there are no ACs for the equipment (autopilot, autoland, HUD), which enable SA CAT I operations. The previously stated intent by FAA Flight Standards was to evaluate and designate “currently certified” equipment for approval for SA operations. Therefore, why has this AC now designated special airworthiness guidance in applying specific equipment (i.e., HDD SVGS) to SA CAT I, and why has the HUD been specifically excluded?</p> <p>Many SVGS studies (including those by NASA and a 14CFR Part 25 OEM) have included evaluation of SVGS using both HUD and HDD. The advantages of presenting the information on the HUD have been confirmed in these studies providing lower workload, fewer head down to head up transitions and pilot preference. In addition, there is over 30 years of operational experience with HUD which also support the advantages with regards to workload and performance in low-visibility conditions.</p> <p>There has been sufficient evaluation of SVGS displayed on a HUD as part of the NASA NextGen studies and there is substantial HUD operational experience which provides a basis for certification of this function. In addition, a 14 CFR Part 25 OEM has previously certified SVS on HUD for situational awareness and the feasibility of this implementation</p>	<p>airworthiness guidance to applicants for eligible SVGS for CAT I ILS instrument approach procedures.”</p> <p>Rewording aligns with FAA precedence to evaluate validation of SA approvals.</p>		Modified

Organization:		Thales Avionics						
24			1.1.4.		<p>“Display of SVGS on a HUD can only be authorized to provide situational awareness. Installation guidance for the display of imagery on the HUD can be found in the current version of AC 20-167, Airworthiness Approval of Enhanced Vision System, Synthetic Vision System, Combined Vision System and Enhanced Flight Vision System Equipment.”</p> <p>This AC should not dictate the operational credit that could be obtained with “properly” utilized SVGS functionality on a HUD. For example, there may be a scenario where the currently approved SA CAT I using a HUD could be expanded through the use of SVGS capabilities (depending on level of “guidance” required).</p> <p>Installation guidance for the display of imagery on the HDD is also found in AC 20-167 and this statement is irrelevant to implementation of SVGS on</p>	<p>Delete Section 1.1.4 in its entirety.</p> <p>AC rewording serves to broaden displays technologies options available within industry for compliance to AC 20-SVGS</p>		<p>Comment Noted. 1.1.4. was changed to be clarified that both HDD and HUD could be used in a SVGS system.</p>

Organization:		Thales Avionics						
25	AC 20-185		3.1.1		<p>“RTCA DO-359 describes SVGS as a combination of SVS and flight guidance displayed on the primary flight display, and high precision position assurance monitors. The SVGS flight instrument display provides a continuous, geo-spatially correct depiction of the external scene topography, including obstacles, augmented by the display of the runway of intended landing. The SVGS display is implemented on a head-down Primary Flight Display (PFD), designed to the guidance provided by AC 25-11B. SVGS includes additional symbology elements, integrity and performance monitors and annunciations.”</p>	<p>“RTCA DO-359 describes SVGS as a combination of SVS and flight guidance displayed on a primary flight display, and high precision position assurance monitors. The SVGS flight instrument display provides a continuous, geo-spatially correct depiction of the external scene topography, including obstacles, augmented by the display of the runway of intended landing. The SVGS display is implemented on a primary flight display or primary flight reference, designed to the guidance provided by AC 25-11B. SVGS includes additional symbology elements, integrity and performance monitors and annunciations.”</p> <p>DO-359 describes SVGS implementation on both HUD and HDD. The AC should not define SVGS implementation to single and specific display type.</p>		Comment Accepted. AC was modified to allow for HUD implementation.
26	AC 20-185		3.1.2		<p>“The SVGS provides the pilot with a dynamic perception of position, trend, and motion, which facilitate the pilot’s transition to the use of visual references out-the-window (OTW).”</p> <p>How has this already been validated – should this not be part of the operational evaluation and functional validation?</p>	<p>“The SVGS shall provide the pilot with a dynamic perception of position, trend, and motion, which facilitate the pilot’s transition to the use of visual references out-the-window (OTW).”</p> <p>AC guidance restated as requirement.</p>		Comment Noted. Commented on section was deleted. AC Chapter 5 discusses performance verification;.

Organization:		Thales Avionics						
27	AC 20-185		3.1.6		<p>“The SVGS depiction, and in particular the DRIL, supports the transition to OTW acquisition of the visual cues required to complete the landing.”</p> <p>“The time to alert criteria and probability of display of Hazardously Misleading Information (HMI) equivalent to ILS CAT II approach operations shall apply to SVGS operations.”</p> <p>The Time to Alert should not be tied to CAT II operations, but should be the result of a Safety Analysis.</p> <p>In DO-359 section C.1.3.2.1 it states “Per ICAO Annex 10 para 3.1.5.7.3.1., the Time to Alert (TTA) for radiation outside the performance limits, including loss of radiation, shall be 2 seconds for an ILS Cat II approach. For a SVGS approach to a 150ft missed approach point this 2 seconds TTA is deemed to be appropriate. If a System Safety Analysis indicates that the probability of the ILS becoming</p>	<p>“The SVGS depiction, and in particular the DRIL, shall support the transition to OTW acquisition of the visual cues required to complete the landing.”</p> <p>AC Guidance restated as requirement.</p> <p>“The SVGS shall comply with a 2s time to alert unless a System Safety Analysis determines that longer TTA increases the probability of the ILS becoming misleading beyond an acceptable level.”</p> <p>Rewording aligns with established standards for time to alert performance limits for ILS based approach and landing operations.</p>		Comment Noted. Para 3.1.6 was deleted from the AC.AC Chapter 4 refers to DO-359 for system performance criteria. SVGS applications would need to demonstrate stated performance.
28	AC 20-185		4.1.2		<p>“All requirements listed in RTCA/DO-359 apply with the exception of requirements specific to HUD installation, or GPS based approach navigation guidance”</p> <p>AC exception as written is unintentionally limiting to proven display solutions available within industry.</p>	<p>“All requirements listed in RTCA/DO-359 apply with the exception of requirements specific to GPS based approach navigation guidance”</p> <p>Minimal rewording serves to broaden display technologies options available within industry for compliance to AC 20-SVGS .</p>		Comment Noted. AC was edited to allow for HUD SVGS applications.
29	AC 20-185	1	1.1.2	This AC does not provide guidance in the same areas as DO-359. This AC only provides airworthiness guidance to applicants for eligible SVGS for SA CAT I ILS instrument approach procedures when presented on the HDD.	Please delete sole reference to HDD. An applicant should also have the ability to certify SVGS on a HUD.	Change sentence to delete last five (5) words. This AC does not provide guidance in the same areas as DO-359. This AC only provides airworthiness guidance to applicants for eligible SVGS for SA CAT I ILS instrument approach procedures.	Editorial	Comment Accepted. Changed AC to allow for HUD based SVGS

Organization:			Thales Avionics					
30	AC 20-185	1	1.1.4	Display of SVGS on a HUD can only be authorized to provide situational awareness. Installation guidance for the display of imagery on the HUD can be found in the current version of AC 20-167, Airworthiness Approval of Enhanced Vision System, Synthetic Vision System, Combined Vision System and Enhanced Flight Vision System Equipment.	Please delete entire paragraph. An applicant should also have the ability to certify SVGS on a HUD.	Delete paragraph.	Editorial	Accepted. The AC was altered to meet the intent of the comment.
31	AC 20-185	2	1.1.6	This AC only applies to SVGS as part of an installed PFD.	Please add HUD to this sentence. An applicant should also have the ability to certify SVGS on a HUD.	This AC only applies to SVGS as part of an installed HDD PFD or HUD.	Editorial	Accepted. The AC altered to meet the intent of the comment.
32	AC 20-185	3	3.1.1	The SVGS display is implemented on a head-down Primary Flight Display (PFD),	Please add HUD to this sentence. An applicant should also have the ability to certify SVGS on a HUD.	Change sentence to read as follows: The SVGS display is implemented on a head-down Primary Flight Display (PFD) or HUD,	Editorial	Comment Noted. Paragraph deleted.
33	AC 20-185	3	3.1.3	Figure 1 (from DO-359) illustrates an example of an implementation on a head-down PFD.	Please add HUD to this paragraph. Figure 1 from DO-359 will work. An applicant should also have the ability to certify SVGS on a HUD.	Change the first sentence to read: Figure 1 (from DO-359) illustrates an example of an implementation on a head-down PFD and Figure 2 (from DO-359) is an example of SVGS on a HUD.	Editorial	Comment Noted. Paragraph deleted.
34	AC 20-185	5	4.1.2	All requirements listed in RTCA/DO-359 apply with the exception of requirements specific to HUD installation, or GPS based approach navigation guidance.	Please delete HUD from this sentence. An applicant should also have the ability to certify SVGS on a HUD.	Change the sentence to read as follows: All requirements listed in RTCA/DO-359 apply with the exception of requirements for GPS based approach navigation guidance.	Editorial	Comment Noted. Paragraph deleted.
35	AC 20-185	2	1.1.5	As stated, this AC complements existing guidance and includes airworthiness guidance for SVGS use on a head-down display (HDD).	Please add HUD to this sentence. An applicant should also have the ability to certify SVGS on a HUD.	Change the sentence to read as follows: As stated, this AC complements existing guidance and includes airworthiness guidance for SVGS use on a head-down display (HDD) and Head Up Display (HUD).	Editorial	Accepted. Document altered to meet the intent of the comment.
Organization:			Gama					

Organization:			Thales Avionics					
36	AC 20-185	ALL	Throughout	There are several instances of the verb “must” used throughout this AC.	<p>FAA Order 1320.46D, FAA Advisory Circular System, Chapter 3 paragraph 7.f states:</p> <p>“f. Use “must” to convey regulatory requirements. ... “Must” clearly conveys a requirement.”</p> <p>Every instance of the verb “must” within the entire draft AC should be examined to determine whether there is a clear regulatory requirement for the use of “must”.</p>	<p>If a clear regulatory requirement cannot be found when the verb “must” is used, the text should be revised to remove the implication that the guidance is based on a regulatory requirement.</p> <p>If a clear regulatory requirement can be found, it should be referenced to enable the reader to make the connection to the regulation that is the basis for the AC using the verb “must”.</p>	Conceptual	Comment Accepted. Text modified to reflect the differences between "must" and "should"
37	AC 20-185	1 et. al.	0 General	This AC only provides airworthiness guidance to applicants for eligible SVGS for SA CAT I ILS instrument approach procedures when presented on the HDD.	SVGS approaches should cover LPV and GLS approaches, in addition to ILS Cat 1.		Conceptual	Comment Rejected. At this time the FAA is only considering the use of SVGS to a DH less than 200 feet when used with a SA CAT I ILS approach.
38	AC20-SVGS	1	1.1.3	Use of an SVGS system on LPV or GLS approaches can only be authorized to provide situation awareness	This methodology restricts the ability to certify a LPV or GLS approach. The majority of instrument approaches for the helicopter fleet are LPV approaches many using WAAS technology that allows the external source of information DO-359 would require.	Include certification option provide in DO-359 in section 1.2.2 on page 4 as an alternative methodology for LPV and GLS approaches.	Conceptual	Comment Rejected. At this time the FAA is only considering the use of SVGS to a DH less than 200 feet when used with a SA CAT I ILS approach.
39	AC-20 SVGS	1	1.1.3	“Installation guidance for systems than can used to fly LPV or GLS based approaches can be found in current version of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems.”	In the last sentence, the word “than” should be “that”.	See comment	Editorial	Comment Accepted. Text modified

Organization:			Thales Avionics					
40	AC20-SVGS	2	1.1.5	Existing ACs address flight guidance symbology, head-up displays (HUD) and visual display characteristics (for example, AC 25-11B, Electronic Flight Deck Displays, AC 25.1329-1C, Approval of Flight Guidance Systems and AC 23.1311-1C, Installation of Electronic Display in Part 23 Airplanes and AC 20-167, Airworthiness Approval of Enhanced Vision System, Combined Vision System, and Enhanced Flight Vision System Equipment). As stated, this AC complements existing guidance and includes airworthiness guidance for SVGS use on a head-down display (HDD).	This AC references multiple applicable AC as additional means of compliance. How does AC20-SVGS and AC 20-167 relate to each other. Are both required? Or does AC 20-SVGS supercede?	Incorporate SVGS guidance into AC20-167.	Conceptual	Added reference to AC 20-167 for additional SVS guidance. The FAA plans to re-organize vision system installation guidance in future AC's along the lines of synthetic and enhanced vision technologies. Until this occurs, and for this AC, AC 20-167 is the basis for SVS while the basis for SVGS is in this AC..
41	AC 20-185	2	1.1.6	"This AC describes an acceptable means, but not the only means, to install and obtain airworthiness approval equipment installation of SVGS."	"...approval equipment..." should be "approval of equipment..."	See comment	Editorial	Comment Accepted. Text modified.
42	AC 20-185	3	2.1.3	Performance Requirements and Evaluation Criteria: Performance requirements and evaluation is addressed in chapter 3.	Does this refer to Chapter 4 and 5 of this AC? Or Section 3 and 4 of the MASPS?	Clarify reference.	Editorial	Comment Accepted. Text modified.
43	AC 20-185	9	Appendix A, Section 2	3. A valid and compatible database must be installed and contain current data.	Unclear reference, since SVGS uses Terrain, Obstacle, Navigation Databases - what database does this apply to? All?	Clarify.	Editorial	Comment Accepted. Text Modified.